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*File ABC
H. 2510*

S-22 INFRARED SCANNER

PROGRESS REPORT NO. 22

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I INTRODUCTION

Two Model S-22 Infrared Scanners have been developed and are to be retrofitted with new analog electronics prior to evaluation. The following report summarizes the monthly progress from 15 February to 15 March 1967.

At this time, the only work in process on the S-22 system is the design and production of the new analog circuits.

II PROGRAM STATUS

A. Technical Conferences

No technical conferences on the S-22 system occurred during this period.

B. System Integration

On 27 February 1967, one chine box was returned to Roy for use in other unrelated tests. Clay's concurrence was obtained prior to shipping this item.

No integration work has been in process during this period.

C. Development Status

1. Thermoelectric Cooler - Vendor repair of the damaged thermoelectric cooler (previously reported) has been completed. As stated in the previous progress report, one additional cooling unit is being procured for a spare because of their special design and long delivery.

2. Retrofit - The analog circuit design has been divided into three segments for manufacture. The three sections

are: the preamplifier unit, the filter - agc unit, and the threshold unit.

The following table presents the present status in the design and production of the required 100 plug-in units.

	<u>Pre-Amp</u>	<u>Filter-Agc</u>	<u>Threshold</u>
Circuit Design	Complete	In review	Complete
Package Design	Complete	Complete	Complete
Worse Case Analysis	Complete	In final test	Complete
Mask Fabrication	Complete	Not released	Complete
Deposition	Started	--	--

III PROBLEM AREAS

One potential problem area may be noted at this time. Flip chip transistor vendors are not delivering on schedule. At present, this does not affect initial production runs, however, it could cause problems in the very near future. We are presently working very closely with the two vendors involved in an attempt to alleviate this problem